STA-UI-A0037s
(BlueW_2310 USB version)
Wifi 802.11 b/g and Bluetooth v2.0 + EDR
Combo USB Dongle

User's Manual

太 欣 半 導 體 股 份 有 限 公 司
SYNTEK Semiconductor Co., Ltd.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 3.04cm between the radiator & your body.

1. Before installation

Requirement environments:

• Windows Vista / Vista-64 / XP sp2 / XP sp3 / 2000 sp4 or above

• At least 50 MB of available free hard disk space for installing the drive

• An IEEE 802.11b, or IEEE 802.11g Access Point (for Infrastructure Mode) or another Wireless Adapter (for Ad-Hoc Mode). Also, the STA-UI-A0037s can compatible with most 802.11n AP router.

• One Available USB port

• CD-ROM Drive (for Driver installation only)

2. Package Contents Check

- ✓ STA-UI-A0037s Combo USB Dongle x 1
  - ✧ Software CD x 1 include
    - ◆ User's Manual
    - ◆ IVT BlueSoleil Bluetooth software and driver
    - ◆ 3DSP WLAN windows software and driver
  - ✧ This Quick Setup Guide x 1
  - ✧ Warranty Card x 1

Please informs your dealer if there are any missing or damaged parts.

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1. Introduction

The SYNTEK **STA-UI-A0037s** product provides the highest level of integration and most aggressive BOM cost by integrating IEEE 802.11b/g and Bluetooth v2.0 + EDR into a single MAC/Baseband chip utilizing a single 2.4GHz transceiver. Integrated on-chip power amplifier and LNA reduce external component count, while still able to deliver ample transmit power for most applications.

Different from any other wireless LAN and Bluetooth chip set vendor, **SYNTEK and 3DSP** uses its patented Software Radio technology to implement both wireless LAN and Bluetooth in software. The highly optimized software radio DSP technology enables **STA-UI-A0037s** to integrate class 1 Bluetooth v2.0 + EDR function without any added cost to the total solution. No extra antenna, PA, RF transceiver, resistor, capacitor, crystal or any components are needed. The software solution even guarantees the Bluetooth RF performance if the wireless LAN performance is tested to be good. It eliminates the need for system manufacturers to separately test the module's Bluetooth RF performance, therefore reduce the testing time and cost.

The **STA-UI-A0037s** utilizes 3DSP's patent pending technologies to fundamentally solve the interference and performance issues existed during 802.11b/g and Bluetooth coexistence, thus improving both 802.11b/g and Bluetooth performance and link stability in real environment. As a result, it enhances user experience in a totally wireless environment, where all devices are connected wirelessly through either Bluetooth link or 802.11b/g link.

The single installation package allows for easy setup and configuration of both 802.11b/g and Bluetooth devices. Combined user interface is intuitive to use. Once configured, both wireless links operate transparently in the background.

2. Product Features

[WiFi]

- ✓ Data Rate up to 54Mbps.
- ✓ Single-band 2.4-GHz 802.11b/g with Bluetooth v2.0 + EDR
- ✓ RF IC integrated on-chip PA capable of delivering 20dBm output power
- ✓ Low active transmit and receive power dissipation and ultra-low power in stand-by and idle modes
- ✓ Supports IEEE802.11 b/g

Security:

- ✓ WPA and WPA2 for advanced authentication and encryption
- ✓ AES and TKIP in hardware for reduced power dissipation and encryption speed
- ✓ Worldwide regulatory support
- ✓ Patent pending technology maximizes multimedia streaming performance over Bluetooth over WLAN in coexistence mode
- ✓ Patent pending Software Radio technology allows single radio, single baseband integration of multiple standards
- ✓ Advanced network security features include WPA, WPA2, 802.11i and 802.11x
- ✓ Long and short preamble supported

[Bluetooth]

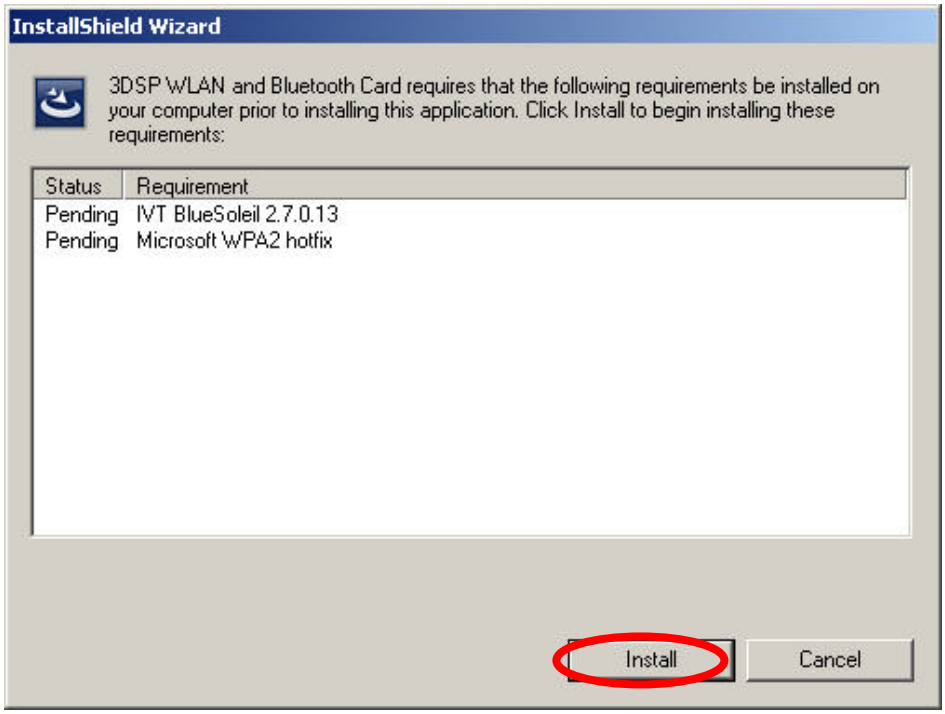
- ✓ Support AFH (Adaptive Frequency Hopping)
- ✓ Support Bluetooth **v2.0 + EDR**
- ✓ Backward compatible with Bluetooth **v1.1** and **v1.2**
- ✓ Support for up to seven active Bluetooth devices
- ✓ Class 1 with 18dbm PA, 100m range

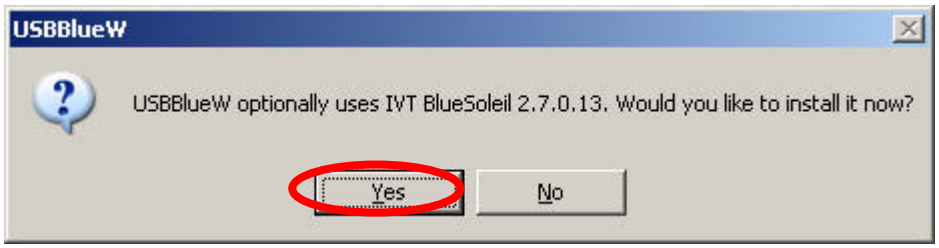
3. Install the Drivers and Utilities

1. Insert the Installation Software CD into CD-ROM drive. If the Auto-Run function of CD-ROM is disabled, you can utilize the Windows Explorer to browse CD content and run **Setup.exe** manually.

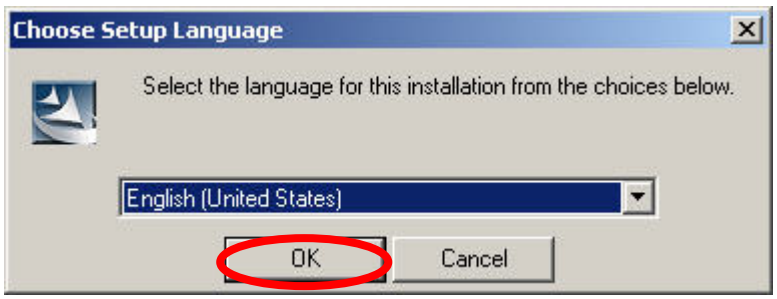
   If the Auto-Run function of CD-ROM is enabled (in Windows, the default setting of this function is usually enabled), then a CD menu will appear automatically.

1. The Instillation program before install 3DSP Wireless driver, the installation program will install the requirement program "IVT BlueSoleil" and "Microsoft WPA2 hot fix" (This is not necessary in many PCs if installed) . The program will install IVT BlueSoleil first. Please press the "Yes" button start install BlueSoleil.

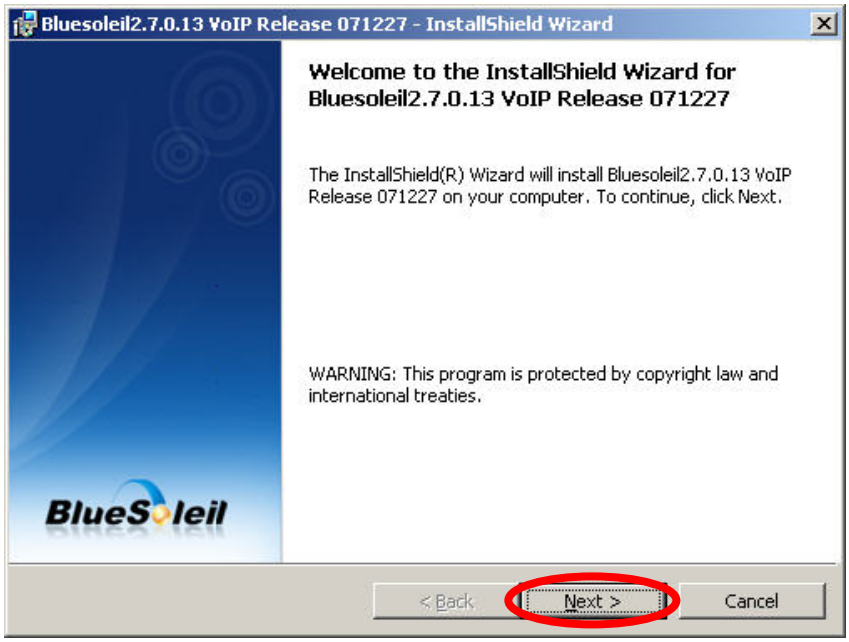

InstallShield Wizard
3DSP WLAN and Bluetooth Card requires that the following requirements be installed on your computer prior to installing this application. Click Install to begin installing these requirements:
Status
Requirement
Pending
IVT BlueSoleil 2.7.0.13
Pending
Microsoft WPA2 hotfix
Install
Cancel



2. Select the Language you want to installation from the combo box, and then press the "OK" button to continue.

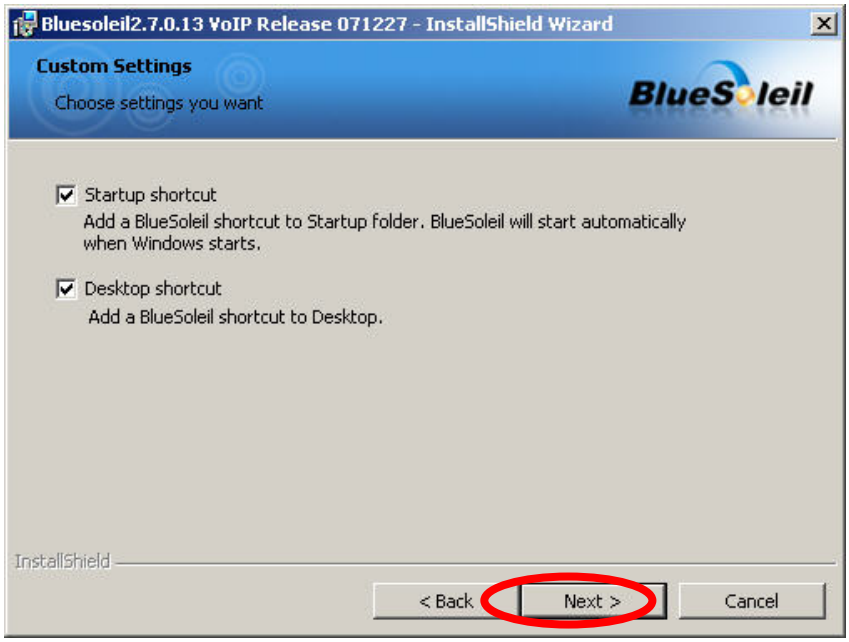


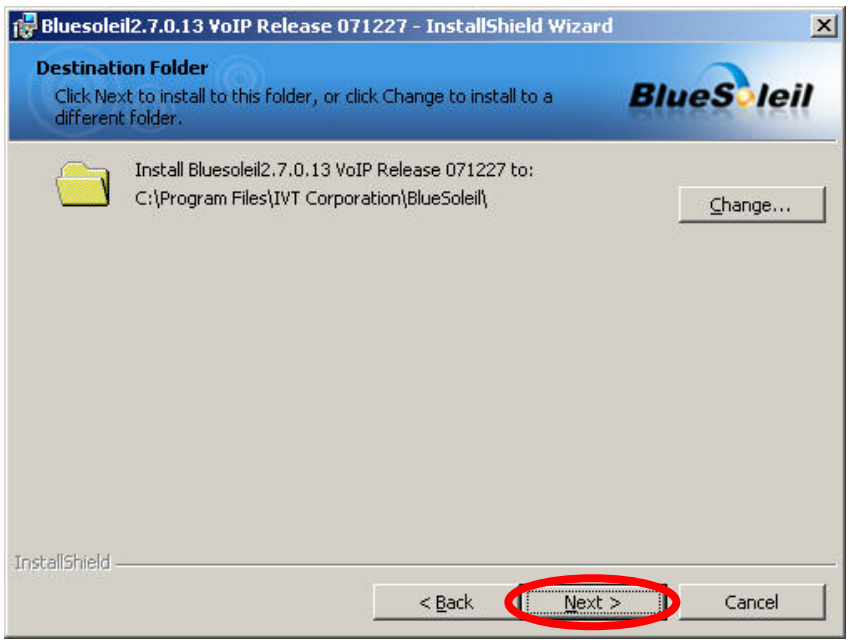
3. Please click *Next* button several times to continue the software installation. In the *License Agreement* window, please read license agreement carefully. Select "I accept the terms in the license agreement" then click "Next" button to continue.


Bluesoleil2.7.0.13 VoIP Release 071227 - InstallShield Wizard
Welcome to the InstallShield Wizard for Bluesoleil2.7.0.13 VoIP Release 071227
The InstallShield(R) Wizard will install Bluesoleil2.7.0.13 VoIP Release 071227 on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
BlueSoleil
< Back
Next >
Cancel

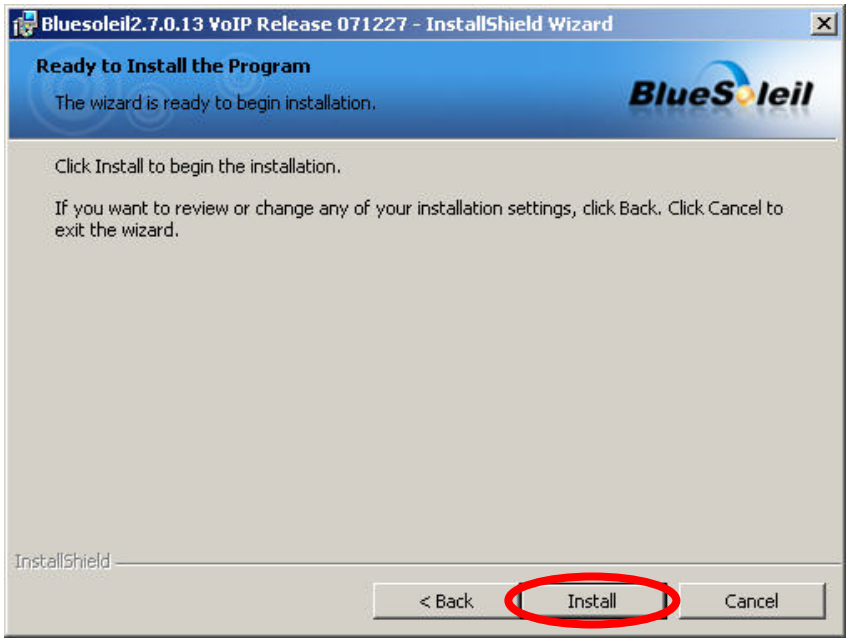
Bluesoleil2.7.0.13 VoIP Release 071227 - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
BlueSoleil
Bluesoleil End User License Agreement
NOTICE TO USER: PLEASE READ THIS AGREEMENT CAREFULLY. THE BLUESOLEIL END USER LICENSE AGREEMENT (AGREEMENT) IS A VALID AND BINDING AGREEMENT BETWEEN YOU, AS A USER, AND IVT CORPORATION (IVT). BY USING ALL OR ANY PORTION OF THE SOFTWARE, YOU ACCEPT ALL THE TERMS AND CONDITIONS
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Print
InstallShield
< Back
Next >
Cancel

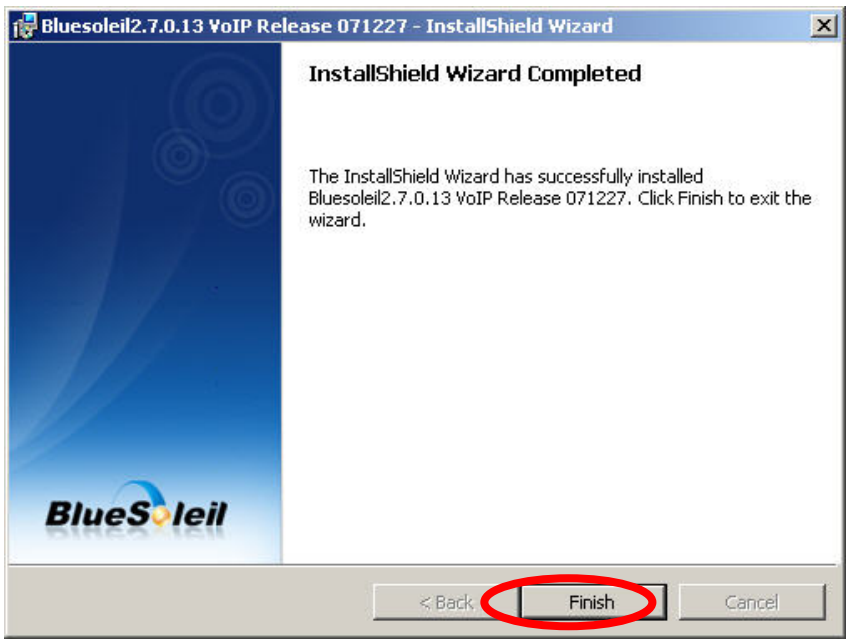
4. Select you want to place the program shortcut, and indicate the location of where you want Bluetooth Software to be stored; if you do not change the default settings, it will be stored under **C:\Program Files\IVT Corporation\BlueSoleil** (Recommended). Click on "*Next*" button to continue. Or you can select your prefers location to install. After finish, the installation program is ready for install.


Bluesoleil2.7.0.13 VoIP Release 071227 - InstallShield Wizard
Custom Settings
Choose settings you want
BlueSoleil
Startup shortcut
Add a BlueSoleil shortcut to Startup folder. BlueSoleil will start automatically when Windows starts.
Desktop shortcut
Add a BlueSoleil shortcut to Desktop.
InstallShield
< Back
Next >
Cancel

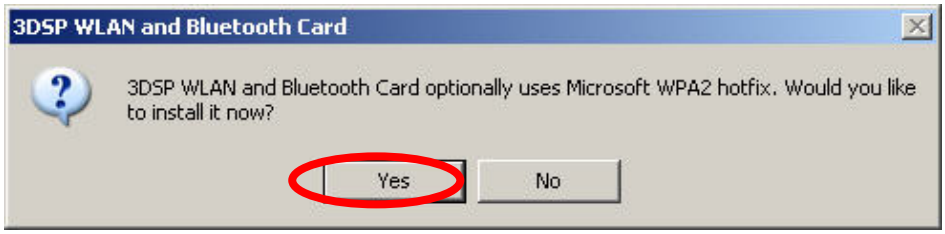

Bluesoleil2.7.0.13 VoIP Release 071227 - InstallShield Wizard
Destination Folder
Click Next to install to this folder, or click Change to install to a different folder.
BlueSoleil
Install Bluesoleil2.7.0.13 VoIP Release 071227 to:
C:\Program Files\IVT Corporation\BlueSoleil\
Change...
InstallShield
< Back
Next >
Cancel

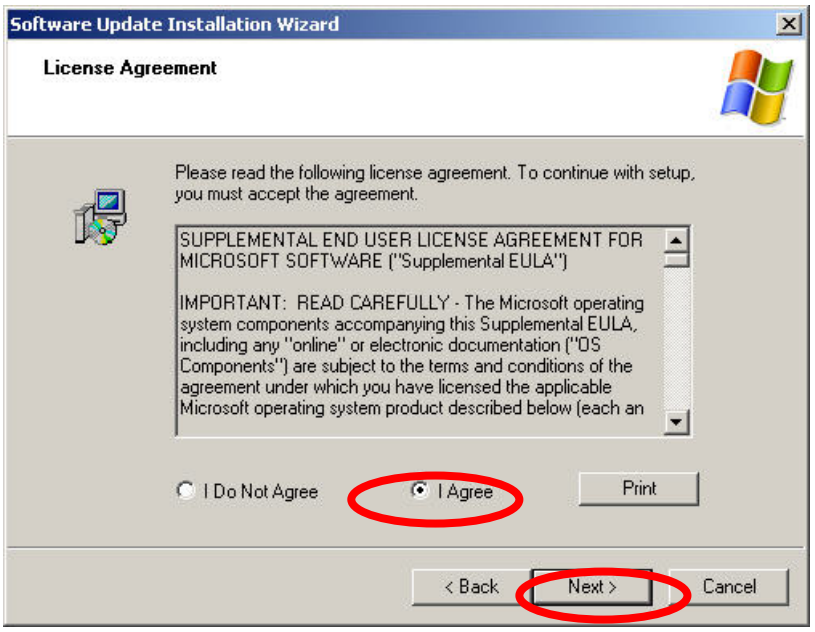
5. The Install Shield Wizard will begin to install the software and copy files to your hard disk. After copy all the files, the installation will try to install virtual Bluetooth device in your system. It may take a few minutes, please wait it finishes the installation.

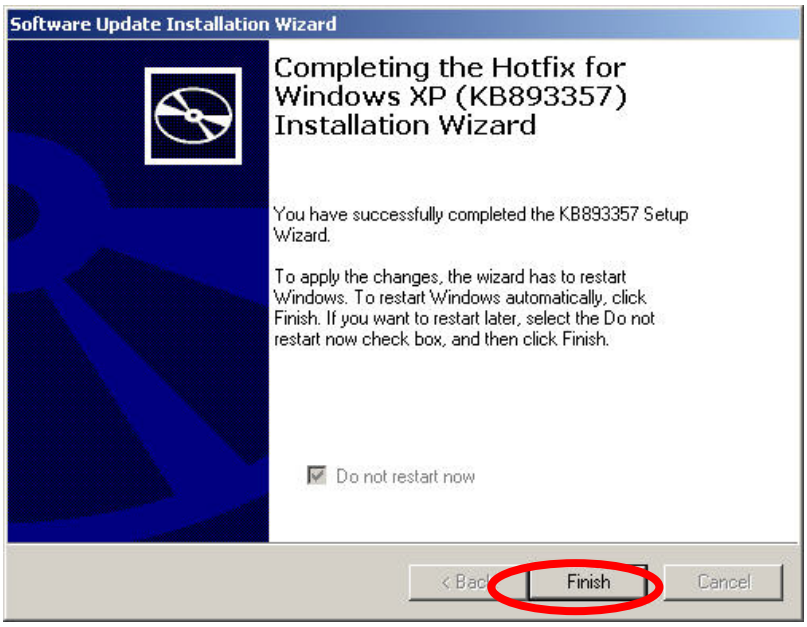

Bluesoleil2.7.0.13 VoIP Release 071227 - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
BlueSoleil
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel


Bluesoleil2.7.0.13 VoIP Release 071227 - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed Bluesoleil2.7.0.13 VoIP Release 071227. Click Finish to exit the wizard.
BlueSoleil
< Back
Finish
Cancel

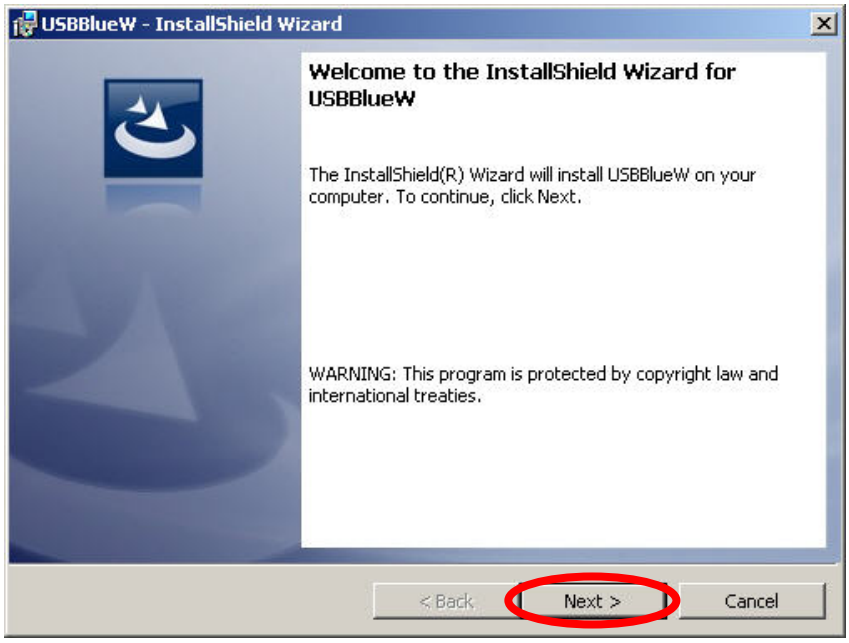
6. After finish installation the IVT Bluesoleil, then the install system will continue install. If your system is not install the WPA2 hotfix yet. The install program will ask you install it first.


3DSP WLAN and Bluetooth Card
3DSP WLAN and Bluetooth Card optionally uses Microsoft WPA2 hotfix. Would you like to install it now?
Yes
No

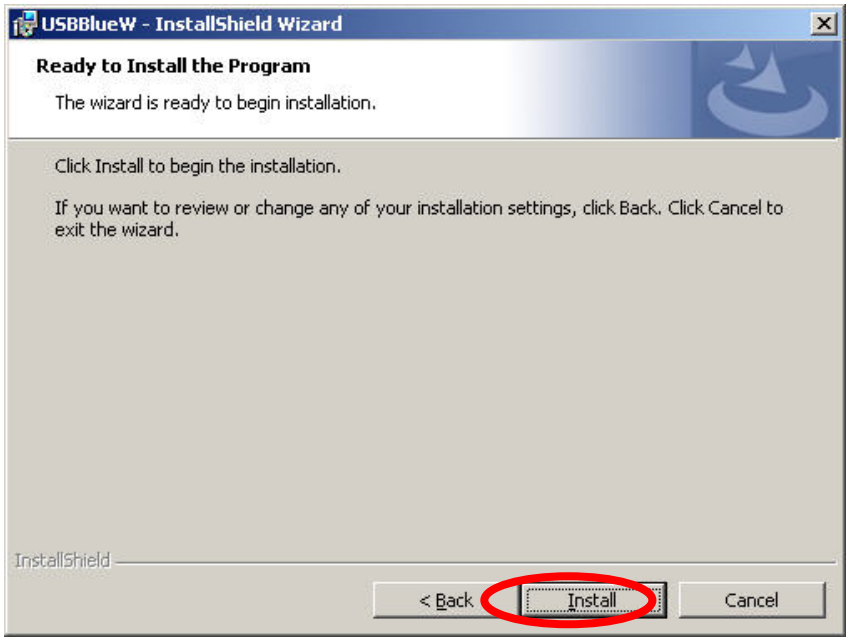

Software Update Installation Wizard
License Agreement
Please read the following license agreement. To continue with setup, you must accept the agreement.
SUPPLEMENTAL END USER LICENSE AGREEMENT FOR MICROSOFT SOFTWARE ("Supplemental EULA")
IMPORTANT: READ CAREFULLY - The Microsoft operating system components accompanying this Supplemental EULA, including any "online" or electronic documentation ("OS Components") are subject to the terms and conditions of the agreement under which you have licensed the applicable Microsoft operating system product described below (each an
I Do Not Agree
I Agree
Print
< Back
Next >
Cancel


Software Update Installation Wizard
Completing the Hotfix for Windows XP (KB893357) Installation Wizard
You have successfully completed the KB893357 Setup Wizard.
To apply the changes, the wizard has to restart Windows. To restart Windows automatically, click Finish. If you want to restart later, select the Do not restart now check box, and then click Finish.
Do not restart now
< Back
Finish
Cancel

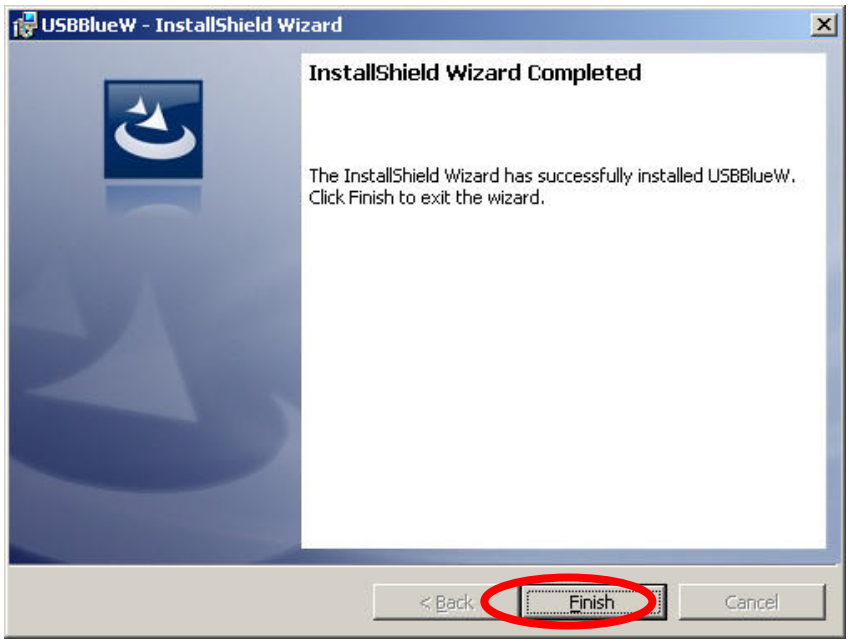
7. Continue install the 3DSP WLAN driver will be stored under **C:\Program Files\3DSP\BluetoothWLAN_usb**. Click the "Next" for continue.

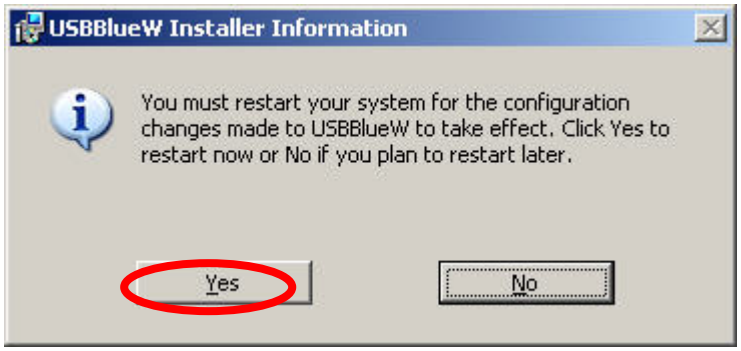

USBBlueW - InstallShield Wizard
Welcome to the InstallShield Wizard for USBBlueW
The InstallShield(R) Wizard will install USBBlueW on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

8. The Install Shield Wizard will begin to install the software and copy files to your hard disk. Please press "Install" for continues.

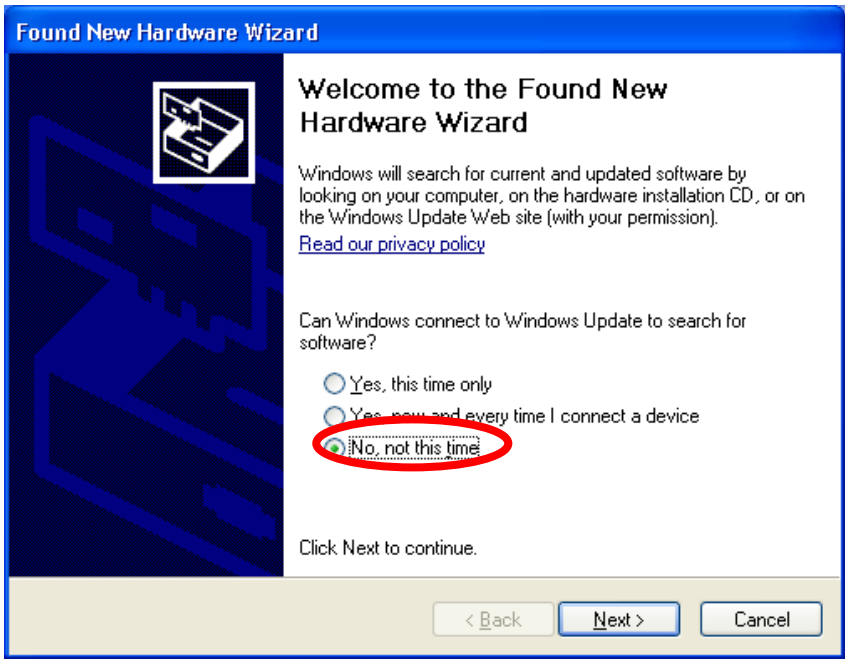

USBBlueW - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

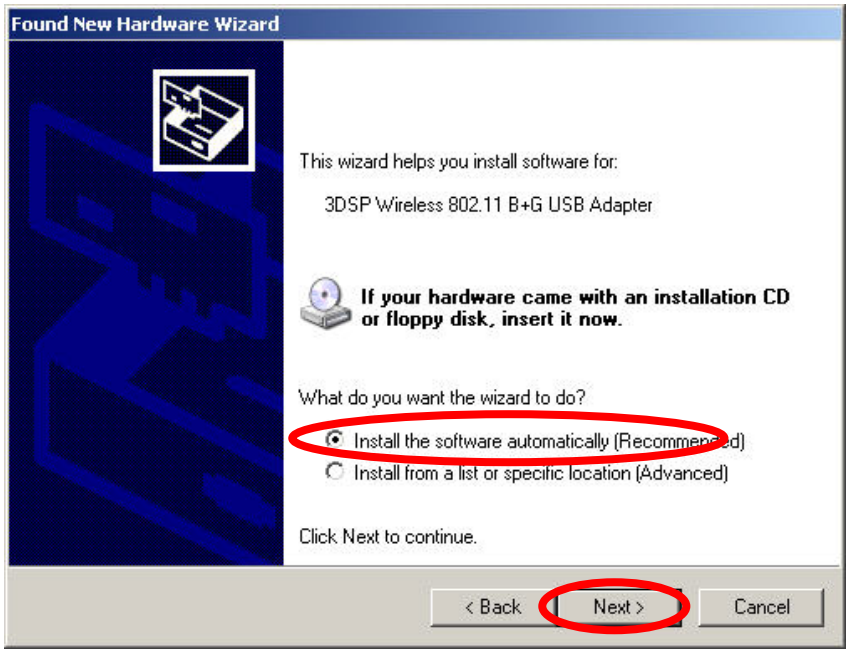
9. After finish installation, please select reboot your system to finish the installation. Or you can select to reboot later.


USBBlueW - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed USBBlueW. Click Finish to exit the wizard.
< Back
Finish
Cancel

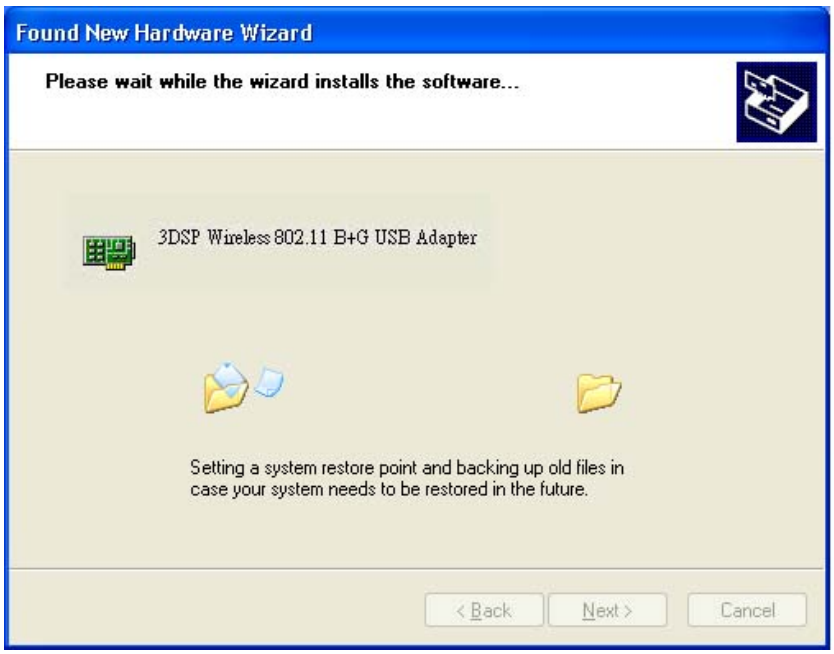

USBBlueW Installer Information
You must restart your system for the configuration changes made to USBBlueW to take effect. Click Yes to restart now or No if you plan to restart later.
Yes
No

10. Please plug the STA-UI-A0037s USB dongle in your PC USB port. After a few seconds, another "Found New Hardware" message will appear briefly, as shown on the fallowing pictures. The system will prompt installation. Windows will find another new hardware (see above), and the following screen will appear. Select **No, not this time**, and click **next** several times, then select auto installation driver.

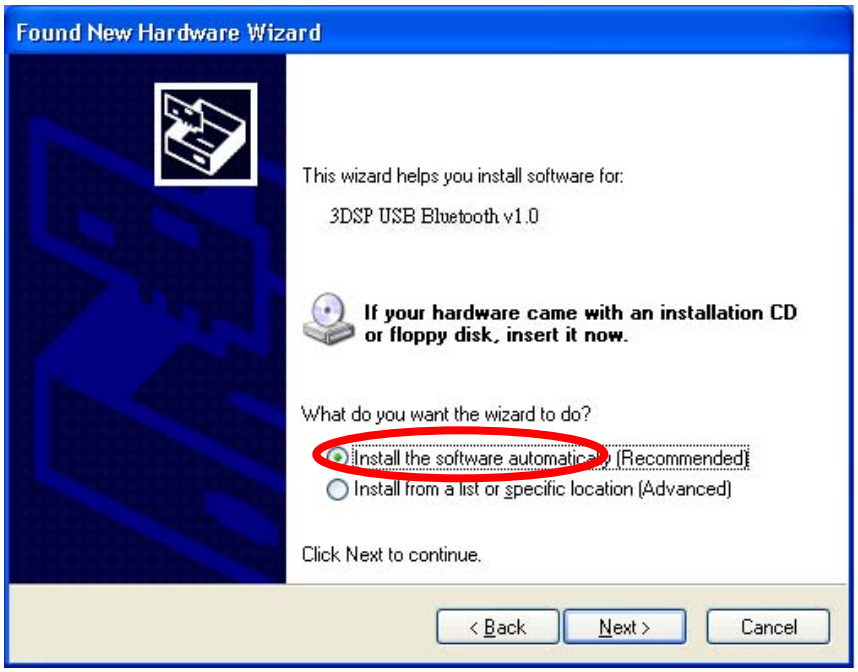

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel

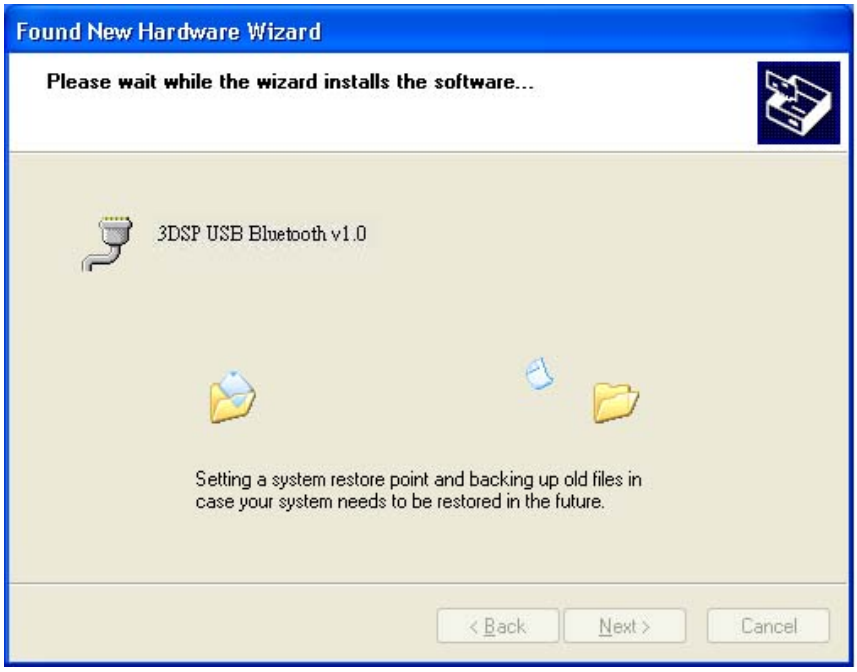

Found New Hardware Wizard
This wizard helps you install software for:
3DSP Wireless 802.11 B+G USB Adapter
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

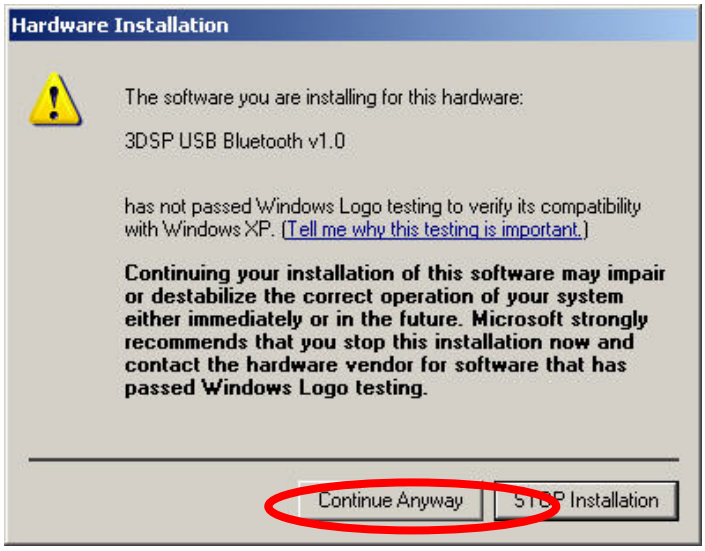
11. The system will prompt now installation the driver for the wireless USB combo dongle, select continue installation. Because the system will installation both WiFi and Bluetooth. So, this procedure will repeat several times.


Found New Hardware Wizard
Please wait while the wizard installs the software...
3DSP Wireless 802.11 B+G USB Adapter
Setting a system restore point and backing up old files in case your system needs to be restored in the future.
< Back
Next >
Cancel

Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
3DSP Wireless 802.11 B+G USB Adapter
Click Finish to close the wizard.
Finish

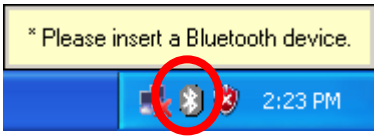

Found New Hardware Wizard
This wizard helps you install software for:
3DSP USB Bluetooth v1.0
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

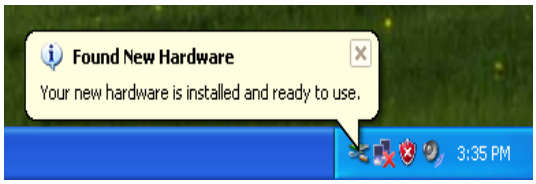

Found New Hardware Wizard
Please wait while the wizard installs the software...
3DSP USB Bluetooth v1.0
Setting a system restore point and backing up old files in case your system needs to be restored in the future.
< Back
Next >
Cancel


Hardware Installation
The software you are installing for this hardware:
3DSP USB Bluetooth v1.0
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
3DSP USB Bluetooth v1.0
Click Finish to close the wizard.
Finish

12. There are two new Bluetooth icons appear on the desktop and the windows task bar respectively when logged in Windows operating system. For more information on the BlueSoleil, please refer to Chapter 2.





13. Please remove the Software CD after the installation is complete.

14. A Bluetooth icon will appear in your system tray

Click **Finish** to close the wizard.

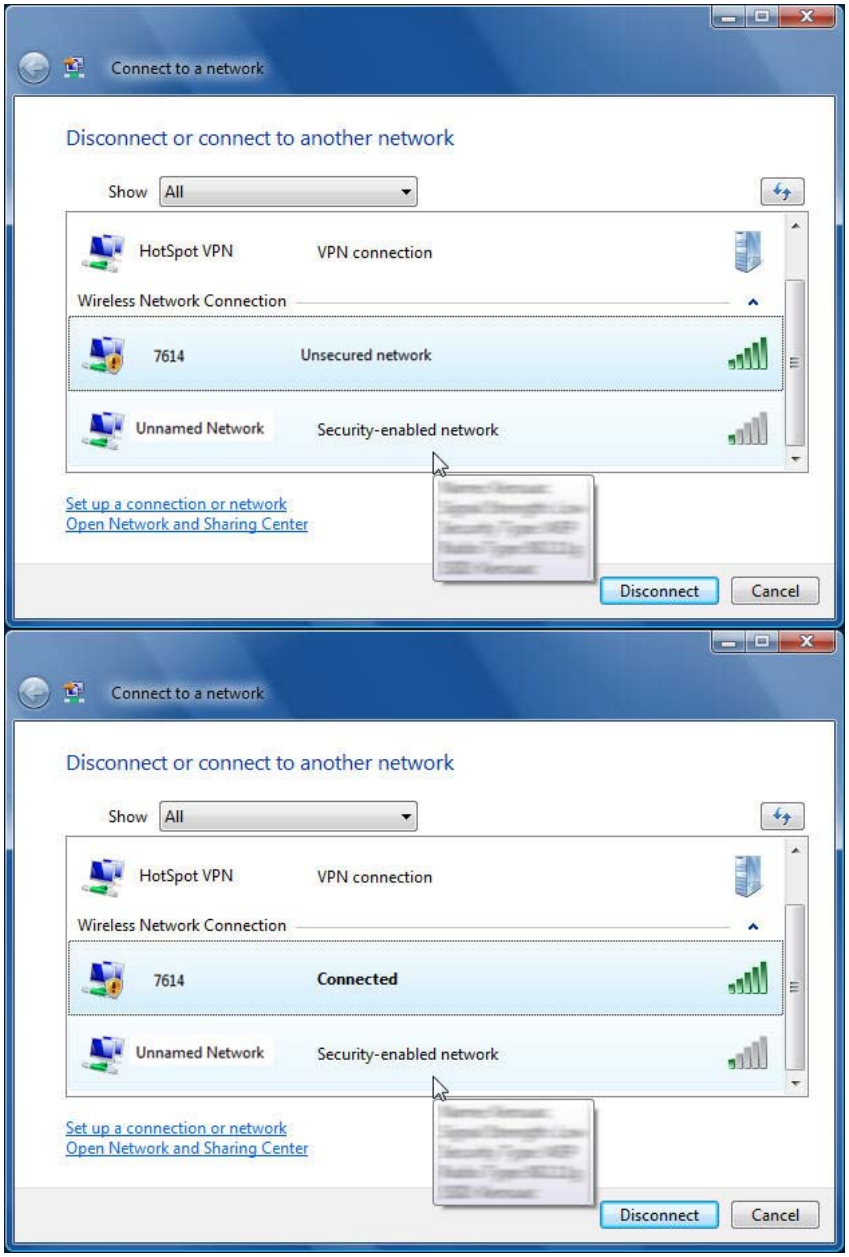
4. Wireless Configuration

4.1 Configuring Your Wireless Network with Windows XP

The Windows XP SP2 operating system has the "Wireless Zero Configuration" feature, which can be used to configure and control the STA-UI-A0037s 802.11b/g and Bluetooth v2.0 + EDR Combo USB Dongle. Wireless Zero Configuration is most appropriately used in home and small office networks and in ad hoc networks. Wireless Zero Configuration should not be used in medium or large networks or in the networks where a high degree of security is required.

Follow these steps to configure your USB dongle using Wireless Zero Configuration:

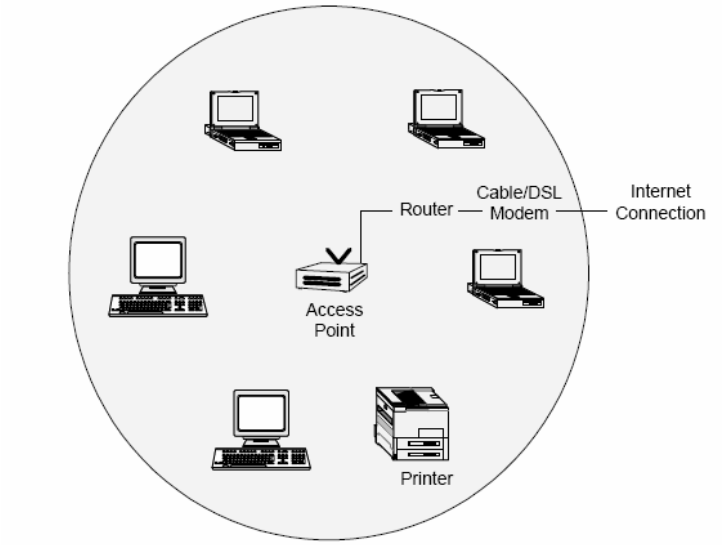
1. From the Start menu, select Control Panel.
2. Click Network Connections.
3. Right-click the network connection associated with your Wireless USB Dongle and select Properties.
4. Click the Wireless Networks tab.
5. Check the Use Windows to configure my wireless network settings checkbox.
6. Click the View Wireless Networks button.
7. Select the Access Point with which you want to connect.
8. Click the Connect button.
9. Type in a network key.



Follow these steps to start Wireless Zero Configuration:

1. From the Start menu, select Run. Enter **services.msc**.
2. Scroll down to Wireless Zero Configuration Service. Double-click on it to open the settings box.
3. Click the Start button to start the service.
4. Set the Startup type drop-down box to automatic.
5. Insert your wireless USB dongle. Windows XP will configure it for you.

4.2 Single Access Point Network

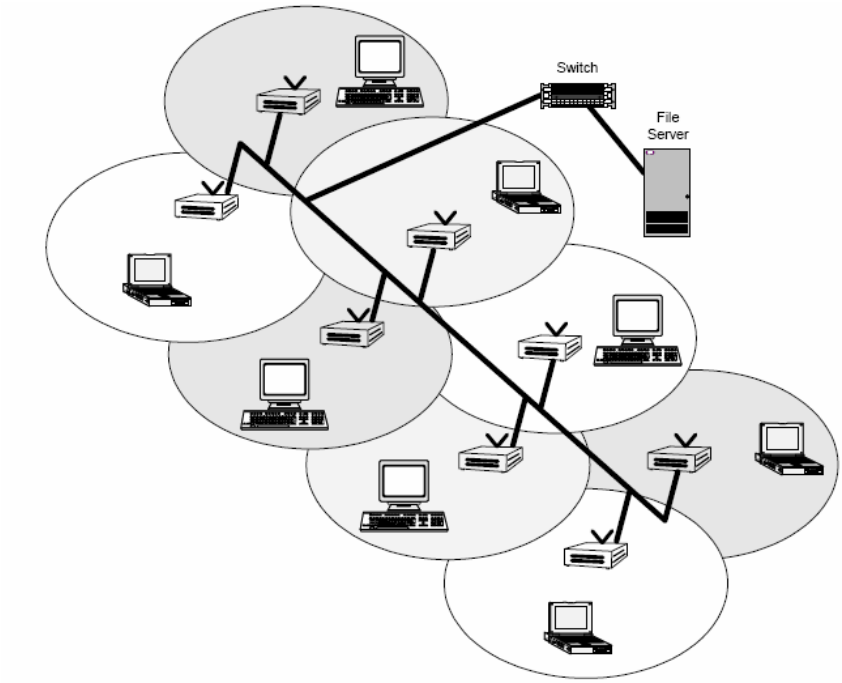


In a small environment, you can set up a wireless network using a single Access Point and one or more Wireless USB dongle. This type of network provides a coverage area sufficient to satisfy the network requirements for many homes and small businesses. The Access Point connects your network computers to an existing network. Once this "**infrastructure**" is in place, you can easily add computers to the network by simply configuring the Wireless USB Dongle in those computers. This eliminates the time and expense of running costly cables throughout your network. Notebook users are now free to roam from office to conference room or from kitchen to outdoor patio.

To create a single Access Point network, the Access Point must be connected to a router and a cable modem or a DSL modem. This connection lets the wireless network access the wired network in your home or office and the Internet. Position the Access Point in the center of your network. If you experience a weak signal or no signal at all from an outer computer, move the computer with the Wireless USB Dongle closer to the Access Point or position the Access Point closer to the computer.

Many manufacturers now offer wireless routers, which combine the Access Point and router in one box. Note that the Access Point and USB Dongles must have the same security settings to communicate. The Wireless USB dongle supports all types of Access Points, including 802.11b and 802.11g.

4.3 Multiple Access Point Network

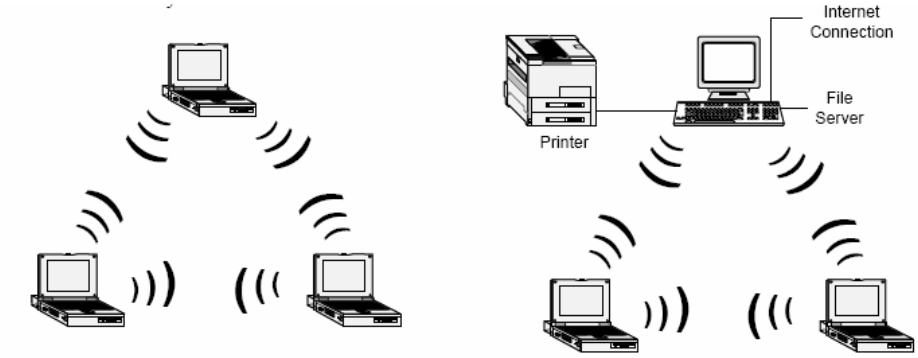


In a large environment, you can set up a wireless network using multiple Access Points and thereby create a large coverage area. In such a network, computers with Wireless USB Dongles that "roam" between different locations within the network area will be served by the various Access Points and maintain the same network connection. Roaming wireless stations in a multiple Access Point network will automatically switch between Access Points when necessary.

To create a multiple Access Point network, the Access Points must be connected by way of a wired backbone. Access Points must overlap to ensure complete connection coverage for the roaming client. Note that all the Access Points and USB Dongles must have the same security settings to communicate.

The Wireless USB Dongle supports roaming between all types of Access Points, including 802.11b and 802.11g.

4.4 Setting Up a Peer-to-Peer Network



A Peer-to-Peer Network consists of two or more notebook or desktop computers with Wireless USB Dongles that communicate directly to each other without the use of an Access Point. Such networks are usually small but they can be very useful.
Co-workers can quickly set up a Peer-to-Peer group in a temporary environment. If there is a printer nearby that is equipped with a wireless device, the members of the Peer-to-Peer group can send print files to that printer. In addition, if one member of the group is connected to an Infrastructure Network (one that uses an Access Point), all the members of the Peer-to-Peer group can access network storage devices and the Internet, provided that their computers have been set up with the necessary software.

In wireless-LAN literature, Peer-to-Peer Networks is sometimes referred to as Ad Hoc Networks. Both terms mean exactly the same thing. The original term was Ad Hoc (from the Latin "to this"). Ad hoc means done or set up solely in response to a particular situation or problem. Because of the vagueness introduced by the Latin term, some manufacturers have been using the more descriptive term "Peer-to-Peer". Peer-to-Peer Networks are used far less widely than Infrastructure Networks. Perhaps that is because users have not learned the simple steps to set up a Peer-to-Peer Network. One person in the group has to create a profile with a Network Name (**SSID**) and other simple settings. After you create the profile, you can communicate that Network Name (**SSID**) to the other people in your group. They will see the Network Name on their Site Survey screen and connect to the network. These are the steps that the first person, the person who is creating the network, must do on the Connection Profile screen.

1. Enter a unique Profile Name and Network Name (**SSID**).
2. Select the Peer-to-Peer radio button.
3. In the Network Type pull-down menu, select the network type that matches all the

WiFi device in your Peer-to-Peer Group (**802.11b and 802.11g**).
4. Establish the Privacy settings that all the computers in the network will be using. Remember that if you need to enable encryption in your network, the other computers in the network will need the encryption key.
To share an Internet connection, you will need to purchase Internet Sharing Software or use the Internet Connection Sharing (**ICS**) utility provided with Windows XP.

4.5 Wireless Performance Considerations

Many factors determine the range, coverage, and transmission rate of wireless components (Access Points and Wireless USB Dongle). Be aware of the following:

- ✧ When a radio signal travels through building materials such as walls, floors, concrete, and metal framing, its strength is reduced. The best performance is achieved when wireless components are in direct line-of-sight with one another. A wall may be six inches thick, but if two wireless components form an acute angle to the wall, the wall may appear to be three feet thick to the radio wave.
- ✧ Place wireless components away from cordless telephones, microwave ovens, printers, and monitors. Cordless telephones and other devices that operate in the 5 GHz frequency range can interfere with wireless transmission. The 2.4 GHz spectrum might be occupied by microwave ovens, cordless telephones, and Bluetooth devices.
- ✧ Increasing the distance between wireless components significantly decreases the number of successfully transmitted packets. If you are far away from your Access Point, you cannot expect to have the same transmission rate as someone who is near the same Access Point.
- ✧ Your actual data throughput will always be less than the data rate of the device (**54 Mbps or 11 Mbps**). In addition to the considerations listed above, the data throughput is less because some of the available bandwidth is used to send control messages and to regulate the wireless traffic. After your dongle receives data, the computer processor and operating system that you are using can cause a further delay in the display of that data.

4.6 WiFi Security Considerations

Transmitting data via radio waves presents real security risks. Someone within your wireless network range could, with a fair amount of effort, access your network and the data you transmit. You might have heard about the white vans that drive slowly through neighborhoods and capture account numbers and passwords. Eavesdropping on computer networks (a.k.a. "sniffing") requires costly equipment and it is therefore unlikely that your neighbor is a real threat.

If you want to ensure the security of your data, wireless LAN technology provides different means to that end. WLAN security standards have progressed from WEP to TKIP to WPA and AES. Each stage in this progression provides users with more protection than the previous stage. Using the same type of security standard throughout the network is a necessity. You cannot configure a profile using WPA and expect to communicate with an Access Point using WEP.

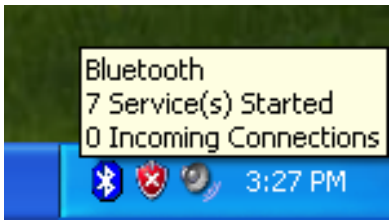
For those who want an effective security feature, the STA-UI-A0037s 802.11b/g and Bluetooth v2.0 + EDR Combo USB Dongle support the Wired Equivalent Privacy (**WEP**) security standard. This feature uses a network key called a WEP key, which encrypts data so that it is only readable by other computers that have a matching WEP key. The WEP key must be entered and stored on each wireless device in the network. You cannot configure a profile using one WEP key and expect to communicate with an Access Point using a different WEP key. Assigning WEP keys in a large environment can be problematic for the system administrator. If an employee leaves your company, new WEP keys should be assigned to protect the network from the former employee who knows the secret key.

5. Bluetooth Configuration and Utilities

5.1 Start the Bluetooth Device

Start the Bluetooth service for ready to service.

1. After you install the USB Dongle, the system tray Icon will become available. If the Bluetooth Services is not start up, please start the IVT BlueSoleil program on your system.



2. Right Click the Bluetooth service tray Icon, press the ***"Display"***.

3. Give this Bluetooth service computer a name and computer type, let the other Bluetooth identify.

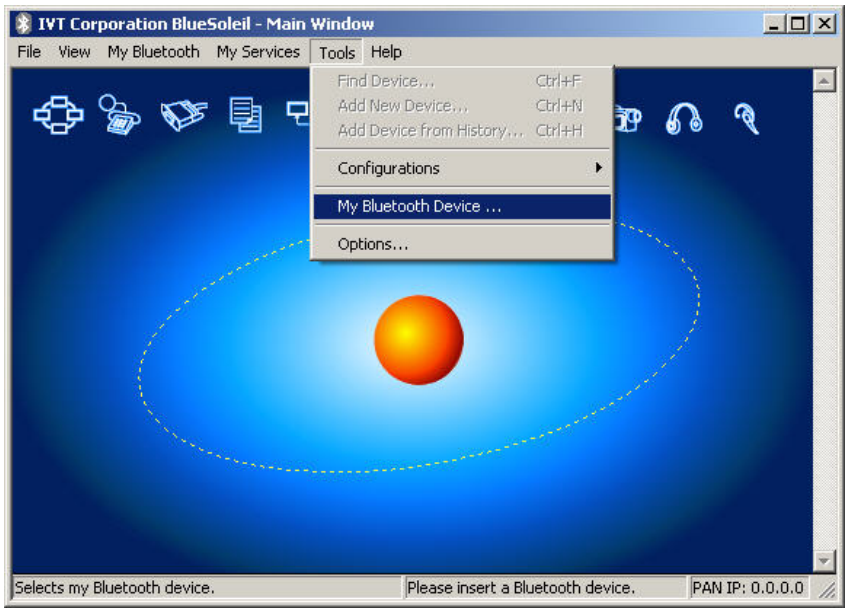
Welcome to Bluetooth
Welcome to Bluetooth
General
Please set your Bluetooth device name and device type. This information will be shown to other Bluetooth devices.
Device Address:
00:11:67:03:DB:65
Device Name:
EXPSP2
Device Type:
Desktop
Security
Your security level is 'Medium' now. Other Bluetooth devices must provide a Bluetooth passkey before connecting with your computer. If you do not want to have security authentication, uncheck 'Use security level Medium.'
Use security level Medium
OK

5.2 Manual Configuration Bluetooth Dongle

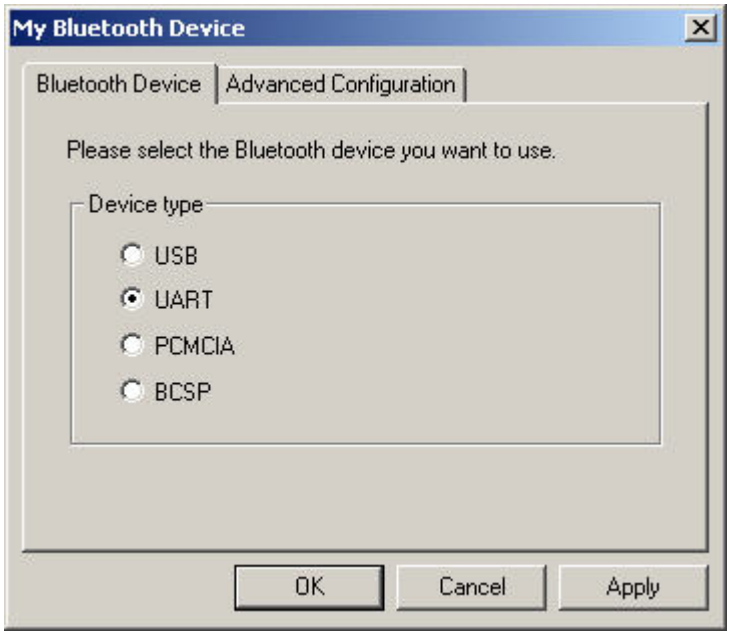
If the IVT BlueSoleil can not identify the USB Dongle Bluetooth services, there you can manually configuration the IVT BlueSoleil.

a. Open the Device management of your system. [Setup] => [Windows Control Panel] => [Device Management]. The search the connection port for 3DSP USB Bluetooth v1.0 (**COM X**). **X** is the **COM** port assign like the fallowing picture.

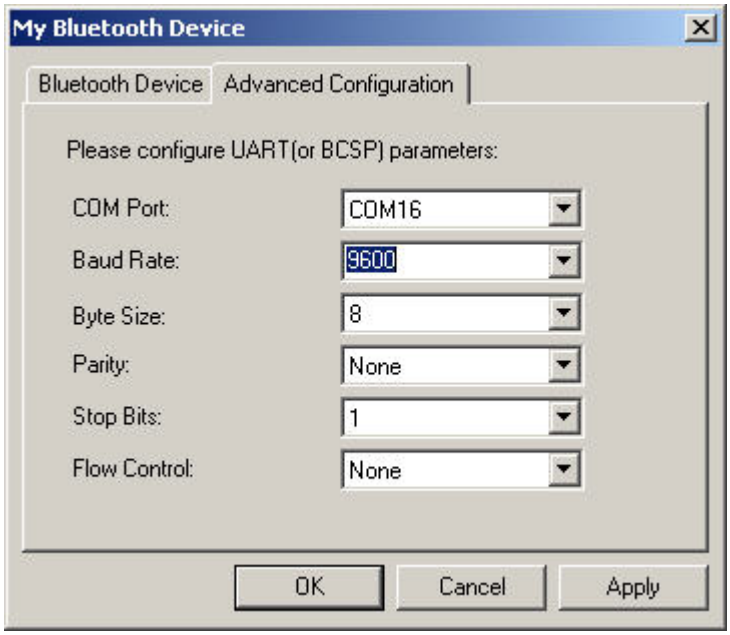
b. Start the IVT BlueSoleil, the go to [**Tool**] => [**My Bluetooth Device**].


IVT Corporation BlueSoleil - Main Window
File View My Bluetooth My Services Tools Help
Find Device... Ctrl+F
Add New Device... Ctrl+N
Add Device from History... Ctrl+H
Configurations
My Bluetooth Device ...
Options...
Selects my Bluetooth device.
Please insert a Bluetooth device.
PAN IP: 0.0.0.0

c. Set as **UART** device, and then go to the advance setup page.



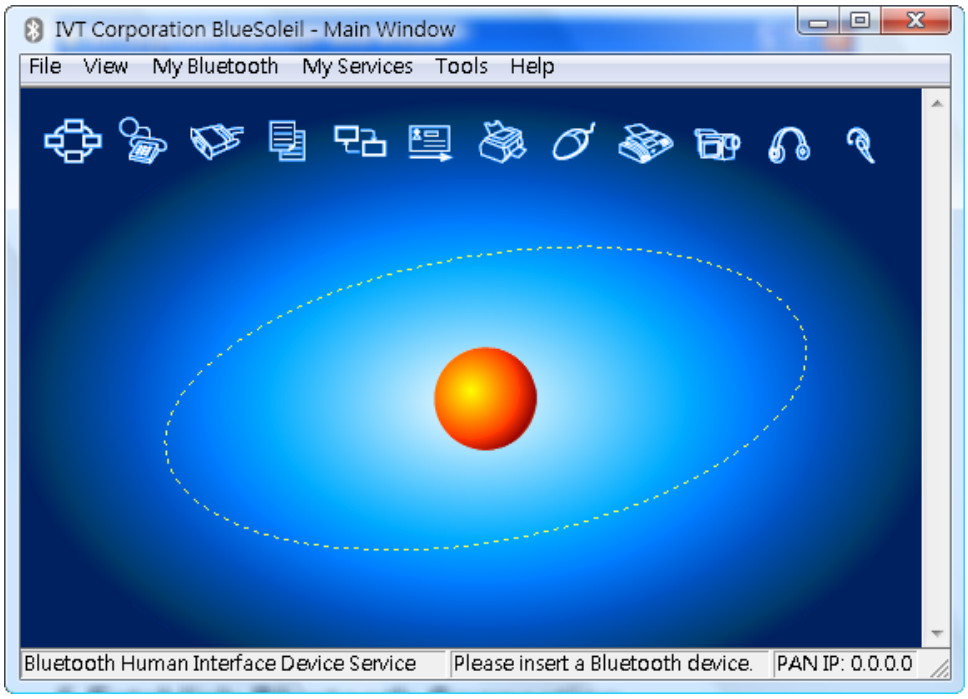
d. Configuration as the fallowing picture setting. Setup the [COM Port] [Transmit speed] [Data Bit] [Parity Check] [Stop bit] [Fallow control]. As COM Port = X that reference from the device management information. Transmit speed = 9600, Data Bit = 8, Parity Check = None, Stop bit = 1, Fallow control = none.



d. After finish setting, please "OK" for finish manually Bluetooth device configuration.

5.3 Start Bluetooth

Start BlueSoleil. (Double click the IVT Bluesoleil icon or in the Start Menu)


IVT Corporation BlueSoleil - Main Window
File View My Bluetooth My Services Tools Help
Bluetooth Human Interface Device Service
Please insert a Bluetooth device.
PAN IP: 0.0.0.0

5.4 Establish Bluetooth Connection

A connection is normally initiated from the client.

- On the server side, start the service.
- On the client side, initiate the connection.

Start Service on Server

If BlueSoleil provides service, please start the service:

1. Change to Service Window.
2. Right-click the service icon, select Start Service on the pop-up menu.

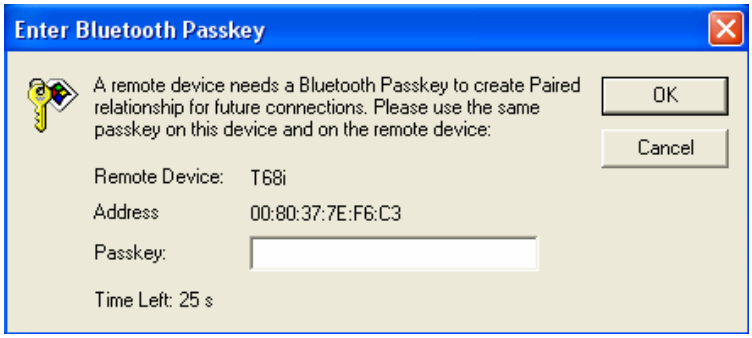
Initiate Connection on Client

In Main Window:

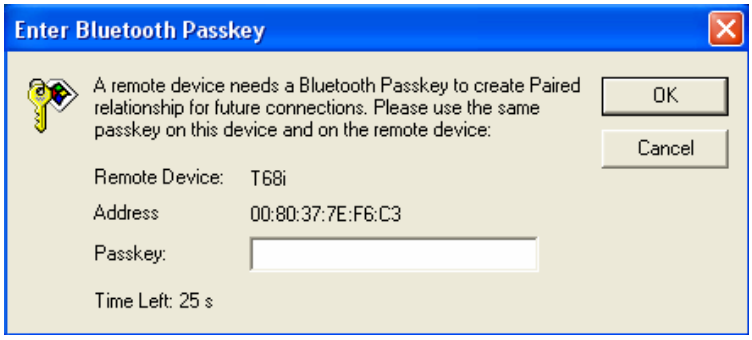
1. Single click my device, the center ball, to search the Bluetooth devices in range.
2. Search the selected Bluetooth device service by double-clicking the device icon. Service button on the top of the BlueSoleil Main Window will be highlighted if the service is supported by the device. Enter the same Bluetooth passkey on both devices if necessary to pair the two devices.

3. Connect.

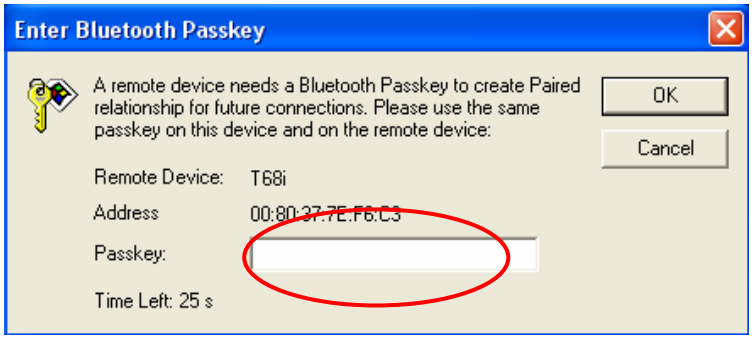
Single-click the highlighted service button to establish the connection


Enter Bluetooth Passkey
A remote device needs a Bluetooth Passkey to create Paired relationship for future connections. Please use the same passkey on this device and on the remote device:
OK
Cancel
Remote Device: T68i
Address 00:80:37:7E:F6:C3
Passkey:
Time Left: 25 s

4. If the other device needs pair, the Bluetooth Icon in the system tray will show a warning massage that the Bluetooth connection need input pair numbers.


Enter Bluetooth Passkey
A remote device needs a Bluetooth Passkey to create Paired relationship for future connections. Please use the same passkey on this device and on the remote device:
OK
Cancel
Remote Device: T68i
Address 00:80:37:7E:F6:C3
Passkey:
Time Left: 25 s

5. Input **the same pair number** as you input in the other Bluetooth device. Then click ok to finish the Bluetooth connection pair procedure.


Enter Bluetooth Passkey
A remote device needs a Bluetooth Passkey to create Paired relationship for future connections. Please use the same passkey on this device and on the remote device:
OK
Cancel
Remote Device: T68i
Address 00:80:37:7E:F6:C3
Passkey:
Time Left: 25 s

5.5 Stop the Bluetooth Device

Remove the USB Dongle from the system. The tray bar icon will show the BlueSoleil is not available.

Figure 1-26: The Bluetooth Device is not available.

6. 3DSP Combo USB Dongle Configuration

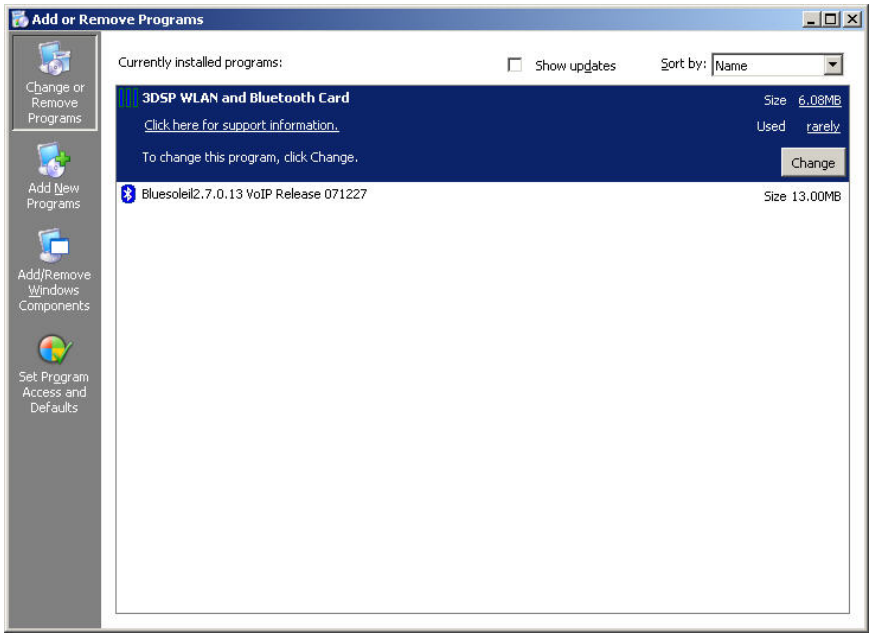
✓ Right-Click on the green three-bar icon in the system tray, a pop-up list that displays several options will appear. (Recommended)

1. Click Coexist to use both utilities simultaneously.
2. Click Exit to exit the USB Dongle configuration program.

7. Remove Driver

If you want to remove the wireless Combo card driver, please read this chapter for introduction.

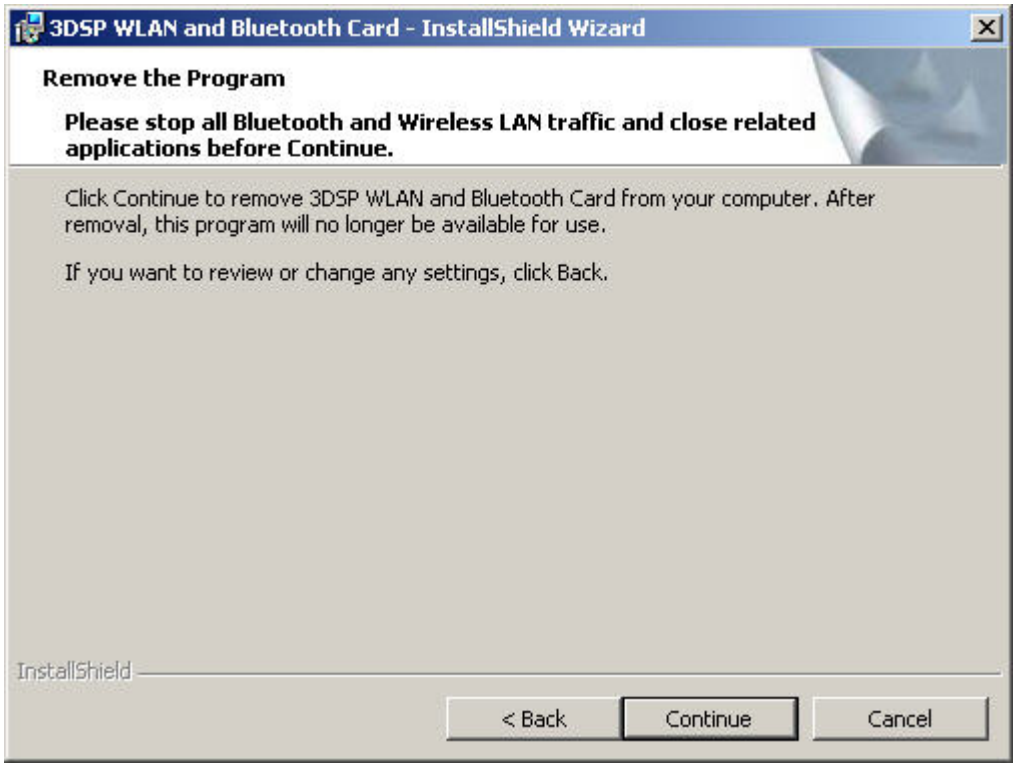
7.1 Go to Windows Control Panel, select and start "Add or remove programs" service.



7.2 Click the 3DSP WLAN and Bluetooth Card, and then press the "Change" button. The system will ask you what you want to do with this program. Select "Remove" and press the "Next" button for remove the program.

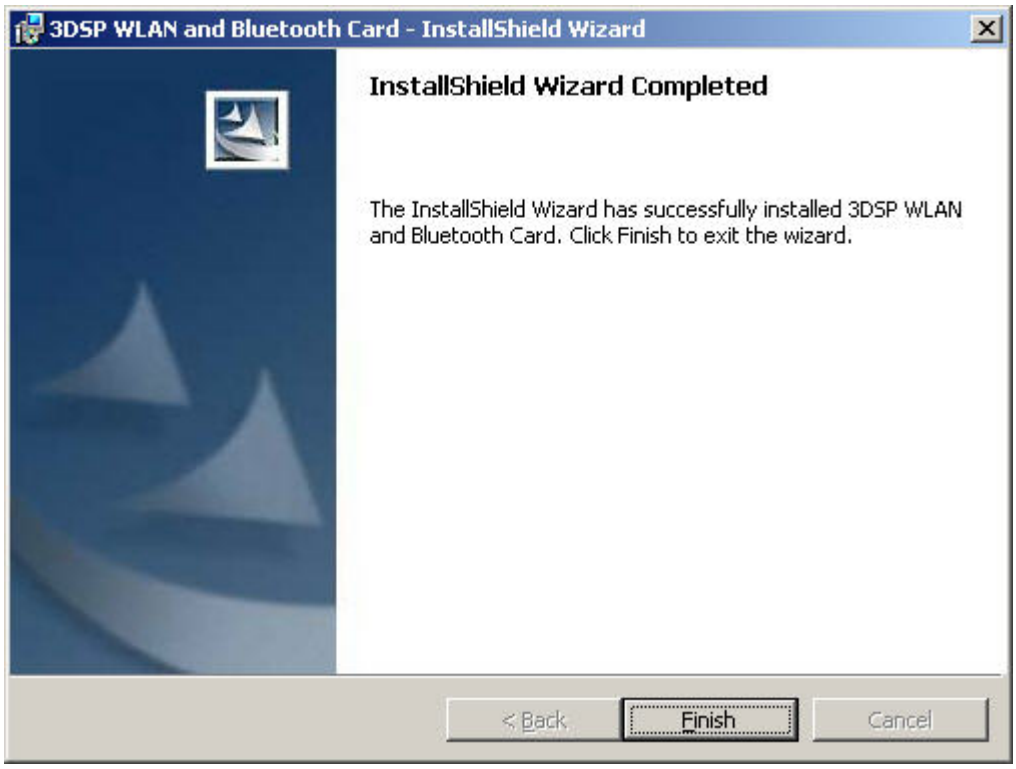
3DSP WLAN and Bluetooth Card - InstallShield Wizard
Program Maintenance
Modify, repair, or remove the program.
Modify
Change which program features are installed. This option displays the Custom Selection dialog in which you can change the way features are installed.
Repair
Repair installation errors in the program. This option fixes missing or corrupt files, shortcuts, and registry entries.
Remove
Remove 3DSP WLAN and Bluetooth Card from your computer.
InstallShield
< Back
Next >
Cancel

7.3 System will ask you again for sure you want to remove it. Click "Continue" for remove the program.


3DSP WLAN and Bluetooth Card - InstallShield Wizard
Remove the Program
Please stop all Bluetooth and Wireless LAN traffic and close related applications before Continue.
Click Continue to remove 3DSP WLAN and Bluetooth Card from your computer. After removal, this program will no longer be available for use.
If you want to review or change any settings, click Back.
InstallShield
< Back
Continue
Cancel

7.4 Finish removes the program. Please fallow the same method to remove the

IVT BlueSoleil for clean your system.


3DSP WLAN and Bluetooth Card - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed 3DSP WLAN and Bluetooth Card. Click Finish to exit the wizard.
< Back
Finish
Cancel

8. Troubleshooting

This section provides solutions to problems that may occur when trying to use the STA-UI-A0037s 802.11b/g and Bluetooth v2.0 + EDR Combo USB Dongle.

Q1. The computer does not recognize the STA-UI-A0037s 802.11b/g and Bluetooth v2.0 + EDR Combo USB Dongle.

A1. Verify that the Wireless USB Dongle is properly inserted into the computer's USB port. If the problem still exists, please reinstall the driver.

Q2. The computer with the STA-UI-A0037s 802.11b/g and Bluetooth v2.0 + EDR Combo USB Dongle is unable to connect to the wireless network.

*A2.1 In Infrastructure mode, make sure that the exact same Network Name (**SSID**) exists on the Wireless USB Dongle Site Survey Screen and on the Access Point settings screen.*

*A2.2 In Peer-to-Peer mode, all computers in the network must have the exact same Network Name (**SSID**).*

A2.3 On the Connection Profile Screen, verify that the Wireless Mode is set correctly on all computers. It must be Access Point if an Access Point is used or Peer-to-Peer if an Access Point is not used.

A2.4 If Enable Encryption is checked, verify that the encryption keys entered in your profile are the same as the encryption keys on the other network computers.

Q3. The STA-UI-A0037s 802.11b/g and Bluetooth v2.0 + EDR Combo USB Dongle are draining my battery's life.

A3. Any wireless adapter will shorten your battery's life to some extent. Heavy network activity (Transmitting and receiving lots of data) will drain your battery much more than if the USB dongle is in idle mode. To get the best energy efficiency, go to the Connection Profile Screen and check ***Enable Power Saving.***

Q4. When I want to install a new version of the software, I have to uninstall the older version. But when I do it, it always asks me for the location of the wlcard50.sys file.

A previous installation did not cleanly remove its driver and INF file. Click 'Cancel' to allow the current uninstallation to complete. Then do the following steps to remove any leftover INF file(s):

A4.1 Open a My Computer view of the files in your Windows \INF folder.

- *This folder is hidden when Windows is installed. To make it visible, click on the \Windows directory, and then select "Folder Options…" from the "Tools" menu. Select the "View" tab, select "Show hidden files and folders", and click "OK". Then click on the INF folder to see the contents.*

A4.2 Make a backup copy of the INF folder before continuing, and follow the procedure very carefully. Your system may become unusable if you delete INF files for devices other than the 3DSP Wireless LAN.

*A4.3 Click the "Search" button in the toolbar, and select "All files and folders". Enter *.INF for the file name, and "3d5b" for the text to search for in the file, and then click "Search".*

A4.4 For all matching files found, delete both the .INF and the corresponding PNF files. Repeat for all ****.INF*** *files that are found to contain "3d5b". For example, if oem6.inf is found to contain "3d5b", delete oem6.inf and oem6.pnf.*

A4.5 Reboot the machine and follow the normal installation procedure.

Q6. I upgrade my driver from V2.1 to V2.2 and use 2.2 version's uninstallation shortcut to uninstall driver and utilities, but c:\Program Files\3DSP folder still

exists after uninstallation.

A6. If you use v2.2's 3DSP Wireless LAN uninstallation shortcut or running setup.exe to uninstall and your machine has the previous released v2.1CD installed, a wlancfgdlg.ico and its 3DSP folder will exist after uninstallation. You can manually remove 3DSP folder under program files after the driver uninstallation.

This problem will not exist if you use v2.2CD and later version to upgrade or remove programs.

If your machine has the previously released version 2.1 installed, it is recommended to use Add\Remove Programs to uninstall the driver and manually remove c:\program files\3DSP folder before upgrading to version 2.2. You don't need to do this step in the future driver upgrading.

Q7. I've plugged in the USB dongle before running setup.exe, but I am still asked to attach the device at the end of the installation.

A7. If you plug in the USB Dongle before running setup.exe and this is your first time installing driver on a machine, you will be asked to attach the device at the end of the installation. The installation will continue and complete if you remove the device and plug it back in.
There won't be a problem if it is a driver upgrade. The installation program can detect the USB Dongle. You do not need to remove the USB Dongle and plug it back in.

Q8. My PC is Microsoft Windows XP SP2, why I can't make connection with the AP Router which encryption is WPA2-AES or WPA2-TKIP?

A8. It's because the Microsoft XP SP2 original version is not support the Wireless WPA2. It needs a hotfix pack (KB903357) to solve this problem. In the driver install CD, there are the hotfix files in the folder (Microsoft WPA2 hotfix for XP Service Pack2). We put the English, Simple Chinese and Traditional Chinese version on it. If your environment is different languages, please download it form Microsoft and install.

Q9. Why I can't hear any sound from my Bluetooth Headset or Bluetooth Speaker?

A9.
1. Please connect the Bluetooth Headset, after connect. The Headset icon will change to Green and there is a small "stop" sign on it. Please press the "connect key" on your head set.

2. Please double click your Audio manger on your windows lower right bar. Or go to control panel => Sound and Audio device.

Check the speaker device is the Bluetooth SCO is the default device? If not, please select the 3DSP Bluetooth SCO as the default device.
(Usually it will change automatically, but sometimes are not)

The microphone device set as above if you wish to use Bluetooth Headset as microphone too.

3. *Play the sound on your PC, it should work. (Please double check the Volume too, sometimes user set it as mute)*

Q10. Why I can detect many wireless APs, but can't get connected any of them?

A10.
1. Please reinstall the Wireless Combo's driver again, after reinstall. Please restart your windows for Enable your Wireless Combo device.

2. Restart access point then try it again.

3. If it still can't works, please disable your notebook's WiFi device (It usually has hardware key). Then connect the AP router you want and try again. And please make sure it's use the right code.

4. Please double confirm how many signal strength show on the WiFi search screen. If signal is too weak to get connect, please closer to your Access Point the try again.

5. If it still can't works, please tell us witch AP router Brand and module you are use. We will check it out ASAP.

9. Specifications

WLAN Spec	IEEE 802.11b/g
Transmit Power	13 dBm to 17 dBm
Sensitivity	-74dBm@54Mbps, -85dBm@11Mbps
Frequency Channel	14
Modulation	802.11g: OFDM / 802.11b: DSSS
Security Features	WEP, WPA, AES, TKIP, WPA2
WEP Key Bits	64 / 128 bit
Protocol	TCP/IP
Bluetooth Spec	Bluetooth v1.2 and v2.0 + EDR
Transmit Power	≦20dBm
Sensitivity	3DH5@BER=1%%, -76dBm；2DH5@BER=1%%, -90dBm；GFSK@BER=0.1%, -88dBm
Frequency Channel	79
Modulation	DQPSK, D8PSK, GFSK
Profile	SPP, DUN,HID, HSP, A2DP, OPP, SYN, LAN, PAN, FAX, FTP, BIP
Operating Temperature	32˚F to 131˚F (0˚ C to 55˚ C)
Storage Temperature	04˚F to 185˚F (-20˚ C to 85˚ C)
Operating Humidity	10% to 85%, Non-Condensing
Storage Humidity	5% to 90%, Non-Condensing
Interface Standard	USB 2.0
Power	DC: 5V@USBs, Normal 320mA / Peak 500mA
Certifications	CE, FCC Class B, Wi-Fi Certification(802.11b/g), BQB , WHQL: Vista 32-bit, Vista-64bit, XP, 2000

10. Contact Information

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